

## REMARKS

This is a full and timely response to the non-final Office Action sent electronically on December 7, 2007. Upon entry of the foregoing amendments, claims 1-11 are pending in the application. Claim 1 has been amended. The subject matter of amended claim 1 is supported in at least the fourth paragraph on page 7 of Applicant's originally submitted specification. Accordingly, no new matter is added to the present application.

In view of the foregoing amendments and following remarks, reconsideration and allowance of the present application and pending claims are respectfully requested.

### Claim Rejections under 35 U.S.C. §103 – Claims 1 - 11

#### A. Statement of the Rejection

Claims 1, 3-5 and 9-11 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,432,874 to Muraguchi (hereafter *Muraguchi*) in view of U.S. Patent No. 6,374,021 to Nakanishi (hereafter *Nakanishi*) and U.S. Patent No. 4,904,036 to Blonder (hereafter *Blonder*.)

Claim 2 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Muraguchi*, *Nakanishi* and *Blonder* as applied to claim 1, and in further view of U.S. Patent No. 5,710,652 to Bloom *et al.* (hereafter *Bloom*.)

Claims 6 and 7 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Muraguchi*, *Nakanishi* and *Blonder* as applied to claims 1, 3, and 4, and in further view of U.S. Patent No. 5,589,684 to Ventrudo *et al.* (hereafter *Ventrudo*.)

Claim 8 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Muraguchi*, *Nakanishi*, *Blonder* and *Ventrudo* as applied to claims 1, 2, 4, and 7 and in further view of U.S. Patent No. 5,329,394 to Calvani *et al.* (hereafter *Calvani*) and U.S. Patent No. 5,686,990 to Laznicka (hereafter *Laznicka*.)

**B. Discussion of the Rejection**

For a claim to be properly rejected under 35 U.S.C. § 103,

“[t]he PTO has the burden under section 103 to establish a *prima facie* case of obviousness. In order to make a proper *prima facie* case of obviousness; three basic criteria must be met, as set forth in MPEP § 706.02(j). First, there must be some suggestion or motivation; either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references, when combined, must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Applicant’s disclosure.”

Each of Applicant’s claims 1-11 includes at least one feature that is not disclosed, taught or suggested by the cited references, alone or in any combination.

**1. Claims 1, 3-5 and 9-11**

Applicant’s claim 1, as amended, is directed to a system for converting first and second signals representative of payload and supervisory information, respectively, between an electrical format and a WDM aggregated optical format “wherein at least one of the first converter, the second converter and the optical WDM converter are mounted on a thermoelectric cooler.” At least this feature is not disclosed by *Muraguchi*, *Nakanishi* and *Blonder*.

Regarding independent claim 1, without conceding the propriety of the asserted combination or whether one of ordinary skill would have been motivated to make the asserted combination for the alleged reasons, Applicant respectfully submits that the asserted combination does not disclose, teach or suggest at least the aforementioned features of claim 1.

*Muraguchi* is directed to a light signal transmitting apparatus having first and second terminals and two optical fibers for coupling the first and second terminals to one another. Light signals are transmitted to the first and second terminals in opposing directions. A multiplexer is used to combine information from a high-speed electrical signal and information from a low-speed electrical signal in a combined

light signal in each of the first and second terminals. A demultiplexer is used to separate the light signal into two light signals before converting the light signals into the high-speed electrical signal and the low-speed electrical signal.

*Muraguchi* is entirely silent regarding a thermoelectric cooler.

*Nakanishi* is cited for its disclosure of a first converter (e.g., LD 169 in FIGs. 21 and 22) a second converter (e.g., PD 168 in FIGs. 21 and 22) and an optical WDM converter (e.g., the WDM filter 171 in FIGs. 21 and 22) sealed in a package (FIGs. 23-25). Office Action, pg. 3, last paragraph continued on pg. 4.

*Nakanishi* is entirely silent regarding a thermoelectric cooler.

*Blonder* is cited for its disclosure of a first converter (e.g., the laser diode 16 in FIG. 1) a second converter (e.g., the photodiode 24 in FIG. 1) and the optical WDM converter (the WDM coupler 20 in FIG. 1) in a hermetic enclosure (FIGs. 11-13, column 5, lines 35-53.) Office Action, pg. 4, lines 3-6.

*Blonder* is entirely silent regarding a thermoelectric cooler.

Consequently, the proposed combination of *Muraguchi*, *Nakanishi* and *Blonder* fails to render Applicant's independent claim 1 obvious because the claim includes at least one feature that is not disclosed, taught or suggested by the proposed combination. Accordingly, favorable reconsideration and withdrawal of the rejection of independent claim 1 under 35 U.S.C. §103(a) are respectfully requested.

Applicant's dependent claims 3-5 and 9-11 are also allowable for at least the reason that claims 3-5 and 9-11 depend directly or indirectly from allowable independent claim 1. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988) (Citations omitted). Accordingly, favorable reconsideration and withdrawal of the rejection of dependent claims 3-5 and 9-11 under 35 U.S.C. §103(a) are respectfully requested.

## **2. Claim 2**

Applicant's dependent claim 2 depends directly from independent claim 1, which includes the feature "wherein at least one of the first converter, the second converter and the optical WDM converter are mounted on a thermoelectric cooler." At least this feature is not disclosed by the proposed combination of *Muraguchi*, *Nakanishi*, *Blonder* and *Bloom*.

Without conceding the propriety of the asserted combination, Applicant respectfully submits that the combination does not disclose at least the aforementioned feature of claim 2, for at least the following reason.

As shown above, the combination of *Muraguchi*, *Nakanishi*, and *Blonder* is entirely silent regarding a thermoelectric cooler. *Bloom* is cited for its disclosure of “processing electronics being integrated to said single self-contained module (Figure 3 and Figure 4, the laser drive electronics or power supply PS is within the single self-contained module Figure 3, column 2 line 22-25 and column 3 line 25-26).” Office Action, pg. 10, second paragraph.

However, Figure 3 and Figure 4 do not show and the cited portions of *Bloom* are entirely silent regarding “wherein at least one of the first converter, the second converter and the optical WDM converter are mounted on a thermoelectric cooler.”

Consequently, the proposed combination of *Muraguchi*, *Nakanishi*, *Blonder* and *Bloom* fails to render Applicant’s dependent claim 2 obvious because the claim includes at least one feature that is not disclosed, taught or suggested by the proposed combination. Accordingly, favorable reconsideration and withdrawal of the rejection of dependent claim 2 under 35 U.S.C. §103(a) are respectfully requested.

### **3. Claims 6 and 7**

Applicant’s dependent claims 6 and 7 depend indirectly from independent claim 1, which includes the feature “wherein at least one of the first converter, the second converter and the optical WDM converter are mounted on a thermoelectric cooler.” At least this feature is not disclosed by the proposed combination of *Muraguchi*, *Nakanishi*, *Blonder* and *Ventrudo*.

Without conceding the propriety of the asserted combination, Applicant respectfully submits that the asserted combination does not disclose at least the aforementioned feature of claims 6 and 7, for at least the following reason.

As shown above, the combination of *Muraguchi*, *Nakanishi*, and *Blonder* is entirely silent regarding a thermoelectric cooler. *Ventrudo* is cited for its disclosure of “a beam splitter has associated radiation focusing elements (lens 15 and 16 in Figure 1) interposed between said beam splitter and said first and second converter.” Office Action, pg. 11, first paragraph.

*Ventrudo* does not remedy the failure of *Muraguchi*, *Nakanishi*, and *Blonder* to disclose, teach or suggest the feature “wherein at least one of the first converter, the second converter and the optical WDM converter are mounted on a thermoelectric cooler.”

Consequently, the proposed combination of *Muraguchi*, *Nakanishi*, *Blonder* and *Ventrudo* fails to render Applicant’s dependent claims 6 and 7 obvious because the claims include at least one feature that is not disclosed, taught or suggested by the proposed combination. *In re Fine, supra*. Accordingly, favorable reconsideration and withdrawal of the rejection of dependent claims 6 and 7 under 35 U.S.C. §103(a) are respectfully requested.

## **5. Claim 8**

Applicant’s dependent claim 8 depends indirectly from independent claim 1, which includes the feature “wherein at least one of the first converter, the second converter and the optical WDM converter are mounted on a thermoelectric cooler.” At least this feature is not disclosed by the proposed combination of *Muraguchi*, *Nakanishi*, *Blonder*, *Ventrudo*, *Calvani* and *Laznicka*.

Without conceding the propriety of the asserted combination, Applicant respectfully submits that the asserted combination does not disclose at least the aforementioned feature of claim 8, for at least the following reason.

*Calvani* is cited for its disclosure of “an optical isolator (9, 209, 210 in Figure 2) prevent the rays reflected by the mirror or the plate et al from re-entering lasers (column 4 line 33-34).” Office Action, pg. 12, second paragraph.

*Laznicka* is cited for its disclosure of “an optical isolator (e.g., 39 in Figure 3) interposed between said beam splitter (37 in Figure 2) and said further focusing element (41 in Figure 3).

*Calvani* and *Laznicki* do not remedy the failure of *Muraguchi*, *Nakanishi*, *Blonder*, and *Ventrudo* to disclose, teach or suggest the feature “wherein at least one of the first converter, the second converter and the optical WDM converter are mounted on a thermoelectric cooler.”

Consequently, the proposed combination of *Muraguchi*, *Nakanishi*, *Blonder*, *Ventrudo*, *Calvani* and *Laznicka* fails to render Applicant’s dependent claim 8

obvious because the claim includes at least one feature that is not disclosed, taught or suggested by the proposed combination. *In re Fine, supra*. Accordingly, favorable reconsideration and withdrawal of the rejection of dependent claim 8 under 35 U.S.C. §103(a) are respectfully requested.

### **CONCLUSION**

For at least the reasons set forth above, Applicant respectfully submits that pending claims 1-11 are allowable over the cited art of record and the present application is in condition for allowance. Accordingly, a Notice of Allowance is respectfully solicited. Should the Examiner have any comments regarding the Applicant's response, Applicant requests that the Examiner telephone Applicant's undersigned attorney.

Respectfully submitted,

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